CLAIMS

What is claimed is:

1. A hERG channel-expressing cell population comprising cells capable of expressing a channel of which the hERG current as determined by patch clamping with a fully automated high throughput patch clamp system is 0.6 nA or more, wherein the proportion of said cells is 40% or more relative to the total number of hERG gene-transferred cells within said population.

2. The cell population according to claim 1, wherein the hERG gene has been transferred with a virus vector.

3. The cell population according to claim 2, wherein the virus vector is a retrovirus vector or a lentivirus vector.

4. The cell population according to claim 1, wherein the average value of the hERG current in the total cell population is 0.3 nA or more.

5. A cell capable of expressing a hERG channel of which the hERG current as determined by patch clamping with a fully automated high throughput patch clamp system is 1.0 nA or more.

6. The cell according to claim 5, wherein the hERG gene has been transferred with a virus vector.

7. The cell according to claim 6, wherein the virus vector is a retrovirus vector or a lentivirus vector.

8. A method of preparing the cell population according to claim 1, the method comprising expressing hERG channels via a virus vector.

9. The method according to claim 8, wherein the virus vector is a retrovirus vector or a lentivirus vector.

10. (Canceled)

11. The method according to claim 8, the method further comprising the step of concentrating the virus vector by ultracentrifugation.

12. A method of measuring hERG current inhibitory activity, the method comprising using the cell population according to claim 1.

13. The method according to claim 12, the method further comprising using a fully automated high throughput patch clamp system.

14. A method of measuring hERG current inhibitory activity, the method comprising using a cell population or a cell prepared by the method according to claim 8.

15. The method according to claim 14, the method further comprising using a fully automated high throughput patch clamp system.

16. A method of screening a compound or a salt thereof for its hERG current altering effect, the method comprising using the cell population according to claim 1.

17. The method according to claim 16, the method further comprising using a fully automated high throughput patch clamp system.

18. A method of screening a compound or a salt thereof for its hERG current altering effect, the method comprising using a cell population or a cell prepared by the method according to claim 8.

19. The method according to claim 18, the method further comprising using a fully automated high throughput patch clamp system.

20. A method of measuring hERG current inhibitory activity, the method comprising using the cell population according to claim 5.

21. A method of screening a compound or a salt thereof for its hERG current altering effect, the method comprising using the cell population according to claim 5.